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PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of:) Docket No.: 23435-007-403
Randall B. METCALF) Confirmation No.: 6301
Serial No.: 10/705,861) Examiner: Marlon T. Fletcher
Filed: November 13, 2003) Group Art Unit: 2837

For: SOUND SYSTEM AND METHOD FOR CREATING A SOUND EVENT BASED ON A MODELED SOUND FIELD

SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT

Commissioner for Patents
P. O. Box 1450
Alexandria, VA 22313-1450

Sir:

Pursuant to the duty of disclosure under 37 C.F.R. §§ 1.56, 1.97 and 1.98, Applicant hereby makes of record in the above-identified application the documents listed on the attached Form PTO-1449.

Applicant has listed publication dates on the attached PTO-1449 based on information presently available to the undersigned. However, the listed publication dates should not be construed as an admission that the information was actually published on the date indicated. Where the publication date of a listed document does not provide a month of publication, the year of publication of the listed document is sufficiently earlier than the effective U.S. filing date and any foreign priority date so that the month of publication is not an issue.

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Applicant reserves the right to establish the patentability of the claimed invention over any of the information provided herewith, and/or to prove that this information may not be prior art, and/or to prove that this information may not be enabling for the teachings purportedly offered.

This Supplemental Information Disclosure Statement is being filed more than three months after the U.S. filing date, and after the mailing date of the first Office Action on the merits, but before the mailing date of a Final Action or Notice of Allowance, whichever occurs first. 37 C.F.R. 1.97(c). Attached is our check in the amount of \$180.00 in payment of the fee under 37 C.F.R. 1.17(p). Please charge any fee deficiencies, or credit any overpayment, to Deposit Account No. 50-0311 as needed to ensure consideration of the Supplemental Information Disclosure Statement. A duplicate copy of this paper is attached.

Documents Nos. 1A, 1C, 1D, 1E, and 1H were cited by the U.S. Patent Office in co-pending Application Serial No. 08/749,766, filed November 20, 1996, in an Office Action dated May 10, 2004.

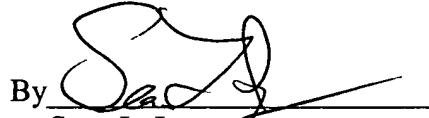
Documents Nos. 1B, 1F, and 1I were cited in a search report by a foreign patent office in a counterpart foreign application. Documents Nos. 1G, 1J, and 1K were cited in a search report by another foreign patent office in another counterpart foreign application. Submission of an English language version of each search report that indicates the degree of relevance found by the foreign offices is provided.

A copy of each cited U.S. patent is not submitted herewith pursuant to the Official Gazette Notice of August 5, 2003, wherein the Office waived the requirement under 37 C.F.R. 1.98(a)(2)(i) for all U.S. national phase applications filed after June 30, 2003.

It is respectfully requested that the Examiner initial and return a copy of the enclosed
PTO-1449.

Respectfully submitted,

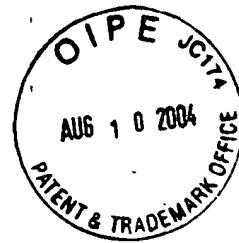
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Dated: August 10, 2004



INFORMATION DISCLOSURE CITATION IN AN APPLICATION

Form PTO-1449

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23435-007-403	10/705,861
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U.S. PATENT DOCUMENTS

*EXAMINER INITIAL	REF	DOCUMENT NO.	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
	1A	3,158,695	11/24/1964	Camras	369	91	
	1B	4,105,865	08/08/1978	Guillory	179	1	
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	REF	DOCUMENT NO.	DATE	COUNTRY	CLASS	SUBCLASS	Translations	
							YES	NO
	1K	0 593 228 A	04/20/1994	EUROPE				

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

	1L	AMATRIAIN et al., "Transmitting Audio Content as Sound Objects", AES 22 nd International Conference on Virtual, Synthetic and Entertainment Audio, Music Technology Group, IUA, UPF, Barcelona, Spain, pages 1-11.
	1M	AMUNDSEN, "The Propagator Matrix Related to the Kirchhoff-Helmholtz Integral in Inverse Wavefield Extrapolation", Geophysics, Volume 59, No. 11, December 1994, pages 1902-1909.
	1N	AVANZINI et al., "Controlling Material Properties in Physical Models of Sounding Objects", ICMC'01-1 Revised Version, pages 1-4.
	1O	BOONE, "Acoustic Rendering with Wave Field Synthesis", Presented at Acoustic Rendering for Virtual Environments, Snowbird, UT, May 26-29, 2001, pages 1-9.
	1P	BUDNIK, "Discretizing the Wave Equation", In <i>What is and what will be: Integrating Spirituality and Science</i> . Retrieved July 3, 2003, from http://www.mtnmath.com/whatt/node47.html , 12 pages.
	1Q	CAMPOS, et al., "A Parallel 3D Digital Waveguide Mesh Model with Tetrahedral Topology for Room Acoustic Simulation", Proceedings of the COST G-6 Conference on Digital Audio Effects (DAFx-00), Verona, Italy, December 7-9, 2000, pages 1-6.
	1R	CAULKINS et al., "Wave Field Synthesis Interaction with the Listening Environment, Improvements in the Reproduction of Virtual Sources Situated Inside the Listening Room", Proc. of the 6 th Int. Conference on Digital Audio Effects (DAFx-03), London, U.K. September 8-11, 2003, pages 1-4.
	1S	CHOPARD et al., "Wave Propagation in Urban Microcells: A Massively Parallel Approach Using the TLM Method", Retrieved July 3, 2003, from http://cui.unige.ch/~luthi/links/tlm/tlm.html , 1 page.
	1T	COREY et al., "An Integrated Multidimensional Controller of Auditory Perspective in a Multichannel Soundfield", presented at the 111 th Convention of the Audio Engineering Society, New York, New York, pages 1-10.

EXAMINER	DATE CONSIDERED
EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP Section 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.	

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	2A	DAVIS, "History of Spatial Coding", <u>Journal of the Audio Engineering Society</u> , Volume 51, No. 6, June 2003, pages 554-569.					
	2B	DE POLI <i>et al.</i> , "Abstract Musical Timbre and Physical Modeling", June 21, 2002, pages 1-21.					
	2C	DE VRIES <i>et al.</i> , "Auralization of Sound Fields by Wave Field Synthesis", <u>Laboratory of Acoustic Imaging and Sound Control</u> , pages 1-10.					
	2D	DE VRIES <i>et al.</i> , "Wave Field Synthesis and Analysis Using Array Technology", Proc. 1999 IEEE Workshop on Applications of Signal Processing to Audio and Acoustics, New Paltz, New York, Oct. 17-20, 1999, pages 15-18.					
	2E	FARINA <i>et al.</i> , "Realisation of 'Virtual' Musical Instruments: Measurements of the Impulse Response of Violins Using MLS Technique", 9 pages.					
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	2G	HOLT, "Surround Sound: The Four Reasons", <u>The Absolute Sound</u> , April/May 2002, pages 31-33.					
	2H	HORBACH <i>et al.</i> , "Numerical Simulation of Wave Fields Created by Loudspeaker Arrays", <u>Audio Engineering Society 107th Convention</u> , New York, New York, September 1999, pages 1-16.					
	2I	KLEINER <i>et al.</i> , "Emerging Technology Trends in the Areas of the Technical Committees of the Audio Engineering Society", <u>Journal of the Audio Engineering Society</u> , Volume 51, No. 5, May 2003, pages 442-451.					
	2J	LANDONE <i>et al.</i> , "Issues in Performance Prediction of Surround Systems in Sound Reinforcement Applications", Proceedings of the 2 nd COST G-6 Workshop on Digital Audio Effects (DAFx99), NTNU, Trondheim, December 9-11, 1999, 6 pages.					
	2K	LOKKI <i>et al.</i> , "The DIVA Auralization System", Helsinki University of Technology, pages 1-4.					
	2L	"Lycos Asia Malaysia – News", printed on December 3, 2001, from http://livenews.lycosasia.com/my/ , 3 pages.					
	2M	MARTIN, "Toward Automatic Sound Source Recognition: Identifying Musical Instruments", presented at the NATO Computational Hearing Advanced Study Institute, Il Ciocco, Italy, July 1-12, 1998, pages 1-6.					
	2N	MELCHIOR <i>et al.</i> , "Authoring System for Wave Field Synthesis Content Production", presented at the 115 th Convention of the Audio Engineering Society, New York, New York, October 10-13, 2003, pages 1-10.					

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OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)							
	3A	MILLER-DALY, "What You Need to Know About 3D Graphics/Virtual Reality: Augmented Reality Explained", retrieved December 5, 2003, from http://web3d.about.com/library/weekly/aa012303a.htm , 3 pages.					
	3B	MULLER-TOMFELDE, "Hybrid Sound Reproduction in Audio-Augmented Reality", AES 22 nd International Conference on Virtual, Synthetic and Entertainment Audio, pages 1-6.					
	3C	NEUMANN et al., "Augmented Virtual Environments (AVE) for Visualization of Dynamic Imagery", Integrated Media Systems Center, Los Angeles, California, 5 pages.					
	3D	"New Media for Music: An Adaptive Response to Technology", <u>Journal of the Audio Engineering Society</u> , Volume 51, No. 6, June 2003, pages 575-577.					
	3E	NICOL et al., "Reproducing 3D-Sound for Videoconferencing: a Comparison Between Holophony and Ambisonic", France Telecom CNET Lannion, 4 pages.					
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	3G	"Brains of Deaf People Rewire to 'Hear' Music", <u>ScienceDaily Magazine</u> , University of Washington, November 28, 2001, 2 pages.					
	3H	SMITH, "Deaf People Can 'Feel' Music: Might Explain How Some Are Able to Become Performers", retrieved December 3, 2001, from http://my.webmd.com/printing/article/1830.50576 , 1 page.					
	3I	SONTACCHI et al., "Enhanced 3D Sound Field Synthesis and Reproduction System by Compensating Interfering Reflections", Proceedings of the COST G-6 Conference on Digital Audio Effects (DAFX-00, Verona, Italy, December 7-9, 2000, pages 1-6.					
	3J	SPORS et al., "High-Quality Acoustic Rendering with Wave Field Synthesis", University of Erlangen-Nuremberg, Erlangen, Germany, November 20-22, 2002, 8 pages.					
	3K	THEILE, "Spatial Perception in WFS Rendered Sound Fields", 2 pages.					
	3L	THEILE et al., "Potential Wavefield Synthesis Applications in the Multichannel Stereophonic World", AES 24 th International Conference on Multichannel Audio, pages 1-15.					
	3M	TOOLE, "Direction and Space, the Final Frontiers: How Many Channels do We Need to be Able to Believe that We are 'There'?", Harman International Industries, Northridge, California, pages 1-30.					
	3N	TOOLE, "Audio-Science in the Service of Art," Harman International Industries, Northridge, California, pages 1-23.					

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